

Stock Analysis

JATIN PATEL

JAI MODHA

SWARIL S PARIKH

California State University, Los Angeles

jatinhpatel90@gmail.com

modhajai@gmail.com

parikh.swaril@gmail.com

Abstract

In this paper, We are able to acquire real time stock data from sites like Google Finance, Yahoo Finance, and Bloomberg Finance etc. We are collecting data for every company listed on NASDAQ for entire day, month and year. we apply data mining technology to stock market in order to research the trend of price, it aims to predict the future trend of the stock market and the fluctuation of price

I. INTRODUCTION

Stock Market prediction has always had a certain appeal for researchers. While numerous scientific attempts have been made, no method has been discovered to accurately predict stock price movement. The difficulty of prediction lies in the complexities of modeling human behavior. Even with a lack of consistent prediction methods, there have been some mild successes. Stock Market research encapsulates two elemental trading philosophies; Fundamental and Technical approaches (Technical-Analysis 2005). In Fundamental analysis, Stock Market price movements are believed to derive from a security's relative data. Fundamentalists use numeric information such as earnings, ratios, and management effectiveness to determine future forecasts. In Technical analysis, it is believed that market timing is key. Technicians utilize charts and modeling techniques to identify trends in price and volume. These later individuals rely on historical data in order to predict future outcomes.

II. MODULES

Our project comprises of four major modules

I. Data collection

As we know Data scraping is a technique in which a computer program extracts data from human-readable output coming from another program. We used "yahoo finance" as our Data source. To capture and collect all the Historical stocks data, we used "YQL (Yahoo Query Language)" to query Yahoo Community tables for the data. (More info: "The Yahoo Query Language is an expressive SQL-like language that lets you query, filter, and join data across Web services. With YQL, apps run faster with fewer lines of code and a smaller network footprint. Yahoo and other websites across the Internet make much of their structured data available to developers, primarily through Web services. To access and query these services, developers traditionally endure the pain of locating the right URLs and documentation to access and query each Web service. With YQL, developers can access and shape data across the Internet through one simple language, elimi-

nating the need to learn how to call different APIs."studies.

II. Data Storage

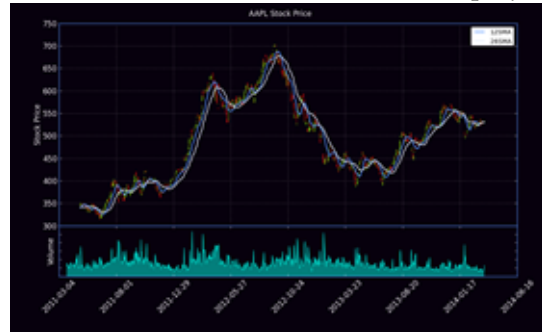
The data we scraped is stored locally and also pushed into a hadoop cluster using "PyDoop(since a language choice is python)".PyDoop Script enables you to write simple MapReduce programs for Hadoop with mapper and reducer functions in just a few lines of code,And the data is in CSV format that is ,(comma) and (hash) separated.

III. Data Analysis

We perform two types of Analysis namely : Mathematical Analysis and Sentimental Analysis. In Mathematical analysis we calculate simple moving Average of all the historical Data and plot in reference to the overall data.In sentimental analysis, We devised an algorithm that predicts the future outcome for a particular stock.

IV. Visualization

Since our project domain encompasses stock analysis the best possible choice to plot the outcome is candle stick chart.Hence,In order to plot such type of graph we used MATPLOTLIB(as considering the language choice is python).We also used Histogram to plot the volume information along with the candle chart.The following figure demonstrates the outcome of the project.



REFERENCES

- [1] Professor John Tran California State University Los Angeles